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TI Method for purification of isocyanatoalkyl (meth)acrylate substantially free from chlorine by distillation and dechlorination using epoxy compound and amine

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DT Patent

LA Japanese

FAN. CNT 1

ABSTRACT

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	<u>JP 11228523</u>	A	19990824	JP 1998-25493	19980206
	CA 2261324	A1	19990806	CA 1999-2261324	19990205
	EP 936214	A2	19990818	EP 1999-102318	19990205
	EP 936214	A3	19990825		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

US 6245935	B1	20010612	US 1999-245707	19990208
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PRAI JP 1998-25493 A 19980206

US 1998-101527P P 19980923

AB Isocyanatoalkyl (meta)acrylates substantially free from hydrolytic chlorine are prepared by purification which involves treatment of (A) isocyanatoalkyl acrylate containing isocyanatoalkyl 2-chloropropionate or (B) isocyanatoalkyl methacrylate containing isocyanatoalkyl 2-methyl-2-chloropropionate with an epoxy-containing compound and amine/or imidazole until isocyanatoalkyl 2-chloropropionate or 2-methyl-2-chloropropionate is no longer present. The purified isocyanatoalkyl (meta)acrylate is useful as a raw material for photoresists (active ray-curable resins) suitable for electronic or elec. parts which is not compatible with chlorine. Thus, 2-isocyanatoethyl methacrylate (I) containing 381 ppm hydrolytic chlorine 300, epoxidized fatty plasticizer (mol. weight .apprx.100 and iodine value 7) containing 6.1% oxirane oxygen 1.7, 2,6-di-tert-butyl-4-methylphenol 0.3, and triethylenetetramine 0.11 g were stirred in a glass reaction vessel at 60° and .apprx.1.3 kPa and distilled at 85° to give 220 g I containing 29 ppm hydrolytic chlorine. Phenothiazine (0.15 g) was added the purified I (150 g) and the resulting mixture was distilled at 70° (column bottom temperature 81°) and .apprx.0.7 kPa with a series of two glass columns packed with Dixon packings to give 53 g I in which no hydrolytic chlorine was detected.

IT 30674-80-7P, 2-Isocyanatoethyl methacrylate

RL: PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(purification of isocyanatoalkyl (meth)acrylate as monomers substantially free from chlorine by distillation and dechlorination using epoxy compound

and

amine)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)